

# MABA-010725-CT1006

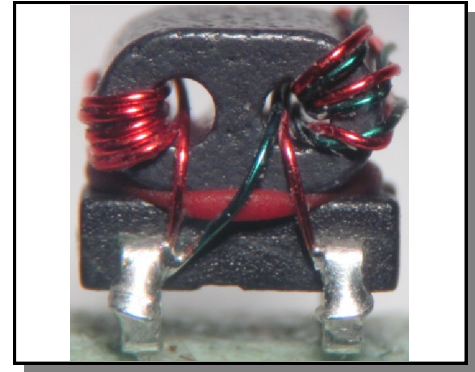


Transformer, 1:1 Transmission Line with tertiary winding  
45 MHz - 1200 MHz

Rev. V1

## Features

- ◆ 1:1 impedance ratio
- ◆ Surface mount
- ◆ Available on tape and reel
- ◆ 260°C reflow compatible
- ◆ RoHS Compliant and Pb free
- ◆ Excellent temperature stability
- ◆ Can be used on 50Ω and 75Ω systems
- ◆ Suitable for all CATV, Broadband and FTTx applications.



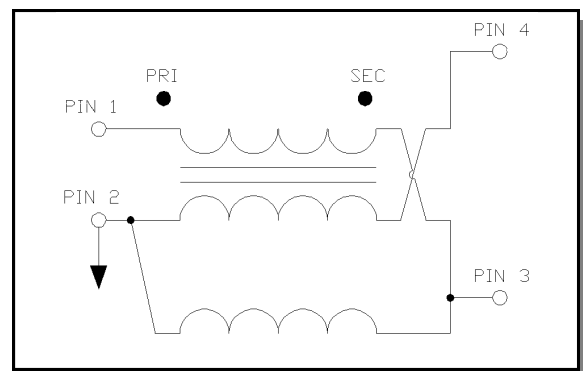
**Electrical Specifications:**  $Z_0 = 75\Omega$ ,  $T_A = 25^\circ\text{C}$ ,  $P_{in} = 0\text{dBm}$

Parameter	Conditions	Units	Min	Typ	Max
Frequency Range		MHz	45		1200
Impedance		$\Omega$		75	
Impedance Ratio				1:1	
Insertion Loss (Pin1 - Pin4)	45 - 100 MHz	dB	-	0.6	0.7
	100 - 600 MHz	dB	-	0.5	0.7
	600 - 1200 MHz	dB	-	0.4	0.8
Insertion Loss (Pin1 - Pin3)	45 - 100 MHz	dB	-	0.2	0.4
	100 - 600 MHz	dB	-	0.4	0.9
	600 - 1200 MHz	dB	-	0.9	1.4
Amplitude Balance	45 - 600 MHz	dB	-	0.2	$\pm 0.5$
	600 - 1200 MHz	dB	-	0.3	$\pm 1.1$
Phase Balance	45 - 500 MHz	$^\circ$	-	2	$\pm 4$
	500 - 1200 MHz	$^\circ$	-	3	$\pm 6$
Input Return Loss (Pin1)	45- 150 MHz	dB	20	27	-
	150- 600 MHz	dB	20	25	-
	600- 1200 MHz	dB	14	19	-

## Pin Configuration

Pin No.	Function
1	Primary Dot
2	Primary
3	Secondary
4	Secondary Dot

## Schematic



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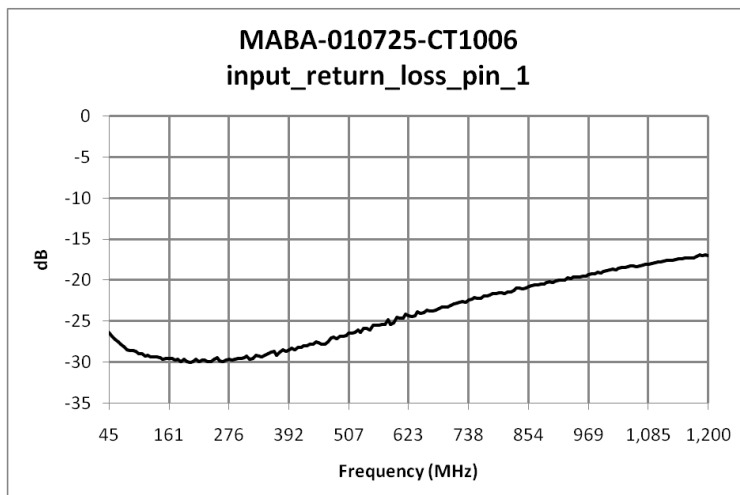
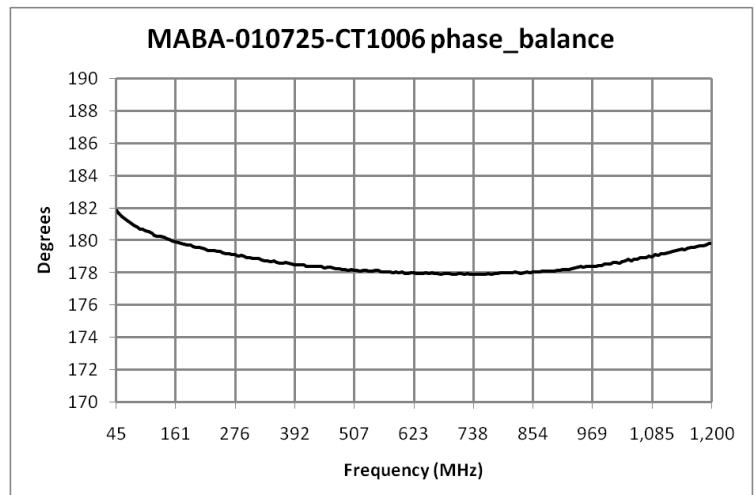
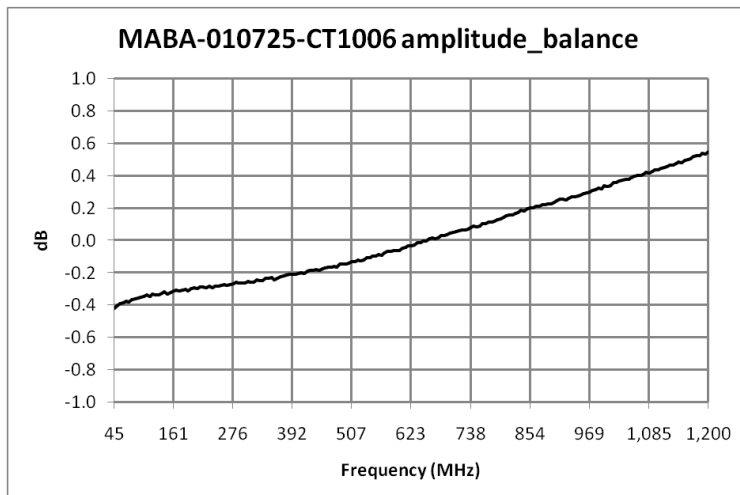
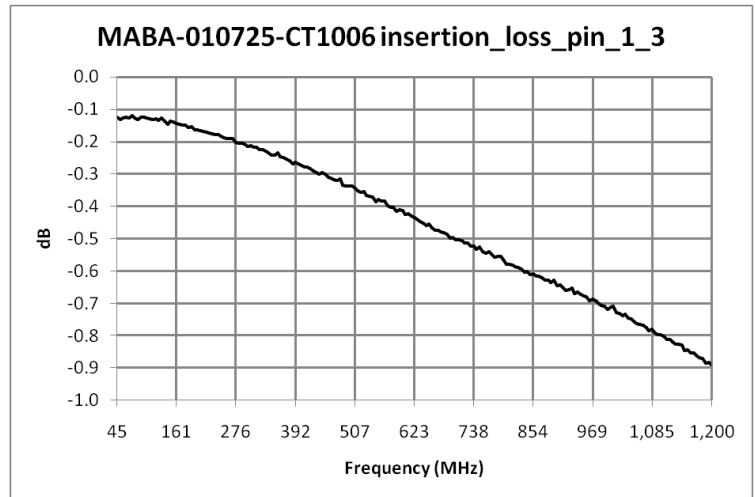
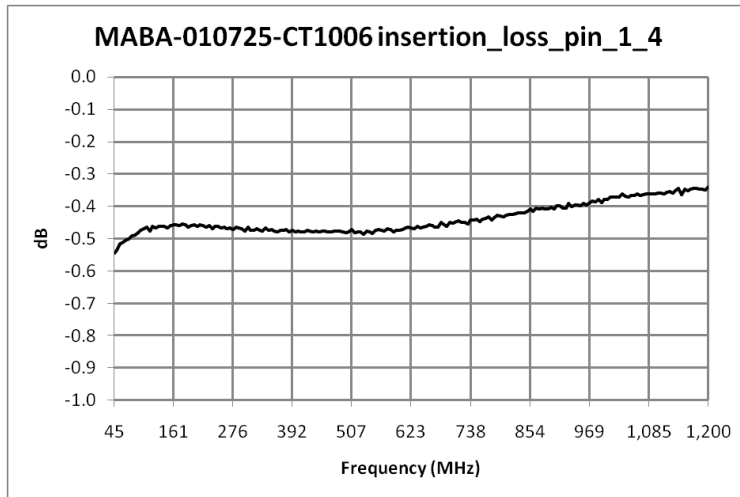
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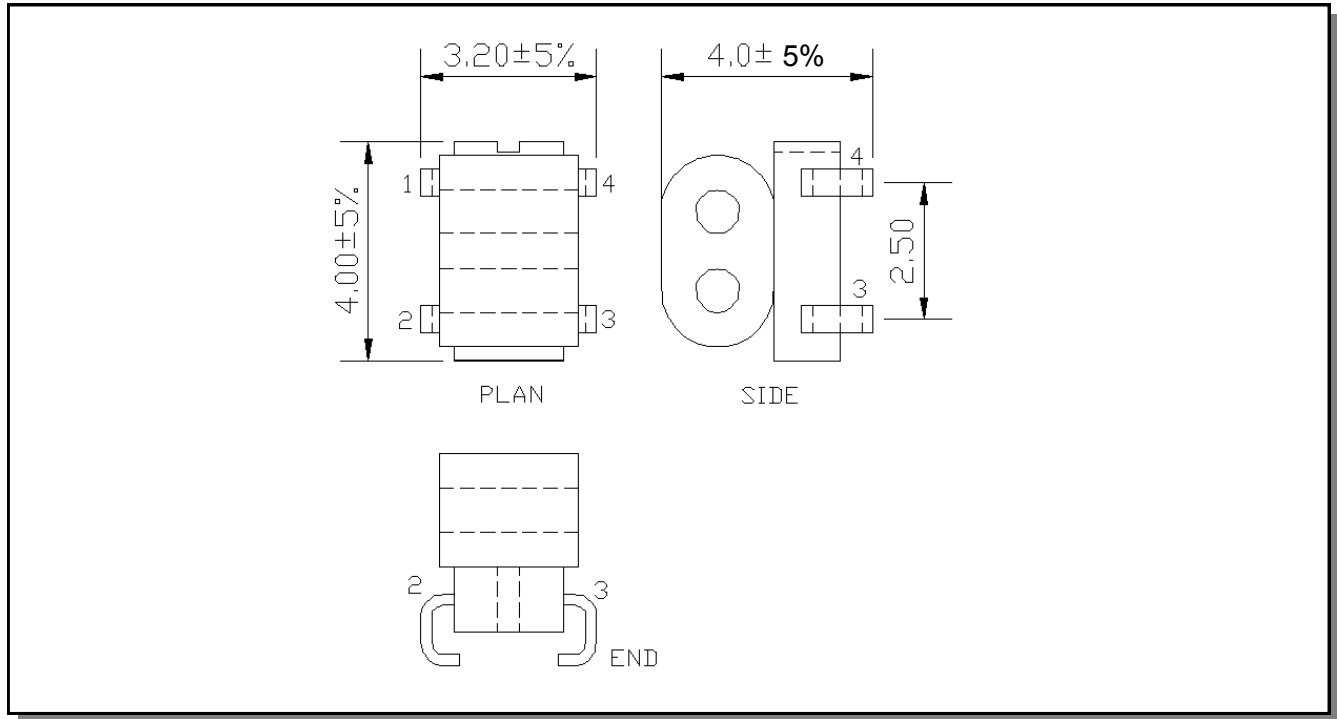
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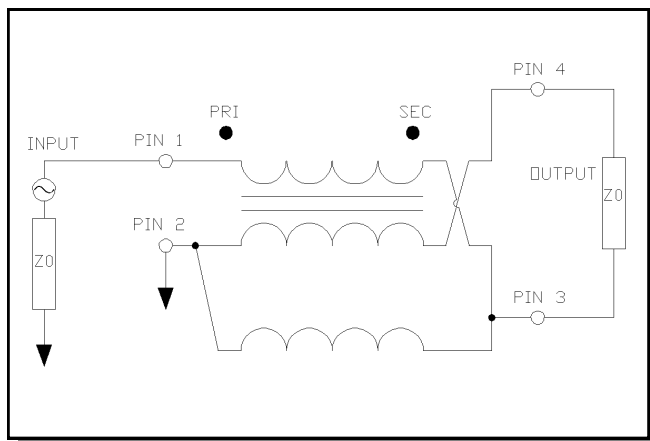
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## Outline Drawing

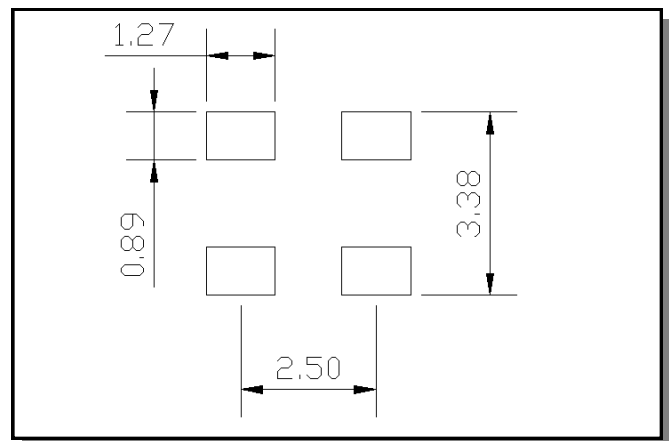


1. Dimensions in mm.
2. Tolerance:  $\pm 0.2$ mm unless otherwise noted.
3. Model number and lot code printed on reel.
4. Plating finish: CuSn6

## Application Circuit



## Recommended Footprint



## Tape & Reel Information

Parameter	Units	Value
Qty per reel	-	2000
Reel size	mm	330
Tape width (W)	mm	12.00
Pitch (P <sub>1</sub> )	mm	8.00
A <sub>0</sub>	mm	3.5
B <sub>0</sub>	mm	4.3
K <sub>0</sub>	mm	4.2
Orientation	-	F48
Reference Application note ANI-019 for orientation		

## Ordering Information

Part Number	Description
MABA-010725-CT1006	Tape & Reel
MABA-010725-CT10TB	Customer Evaluation Board

## Recommended Maximum Ratings

Parameter	Units	Min	Max
Input Power	mW		250
DC Current	mA		200
Operating Temperature Range	°C	-40	+85

Temperature data available on request